

LaCie electron22blue

User Guide

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Useful links

- www • LaCie Home Page: <http://www.lacie.com>
- www • LaCie Color products: <http://www.lacie.com/scripts/color/color.cfm>
- www • Calibration: <http://www.lacie.com/scripts/color/calibration.cfm>
- www • Latest datasheets: <http://www.lacie.com/scripts/press/pdfBank.cfm>
- www • Technical support: <http://www.lacie.com/scripts/support/colortech.cfm>
- www • News: <http://www.lacie.com/news>

Contents of the LaCie electron22blue package

- LaCie electron22blue
- 1 AC Power Cord & 1 AC Power Cord US
- 1 Signal Cable SC-B104
- 1 USB Upstream Cable
- 1 LaCie blue hood
- 1 "Color CD"

Foreword

Congratulations on your purchase of a LaCie electron22blue monitor. This manual will help you:

- install your new device properly,
- put it into operation,
- learn rapidly how to operate it.

This manual also contains explanations about the latest interfaces.

Icons

Indented paragraphs have an icon indicating the type of information being given.



Note



Technical information, news.



This icon indicates a potential hazard. You should read the warning.

Introduction

Congratulations on your purchase of a high resolution color monitor. LaCie designed this monitor to provide you with years of reliable trouble-free operation.

This guide tells you how to connect, adjust and care for your monitor. This guide also provides technical specifications and instructions for troubleshooting any basic problems you may experience with your monitor.

Features

The LaCie electron22blue is a 55cm/22" (51cm/20" Diagonal Viewable Image) intelligent, microprocessor-based monitor compatible with most analog RGB (Red, Green, Blue) display standards, including PS/V® , PS/2® , Apple® Macintosh® Centris, Quadra, Macintosh II and Power Macintosh family signals.

It provides crisp text and vivid color graphics with VGA, SVGA, XGA (non-interlaced), and most Macintosh compatible color video cards.

- The monitor's wide auto-scanning compatibility range makes it possible to upgrade video cards or software without purchasing a new monitor.
- Digitally controlled auto-scanning is done using an internal microprocessor, for horizontal scan frequencies between 30kHz and 121kHz, and vertical scan frequencies between 50Hz and 160Hz. The microprocessor-based intelligence allows the monitor to operate in each frequency mode with the precision of a fixed frequency monitor.
- The monitor contains resident memory for pre-programmed screen display standards and is also capable of storing additional user adjustment parameters.
- The monitor is capable of producing a non-interlaced maximum addressable resolution format of 2048 dots x 1536 lines. This display is well suited for windowing environments.
- Because of the analog signal inputs, the monitor can display an unlimited palette of colors that can be manually adjusted to suit your specific needs.
- The monitor has a power management function accorded to VESA™ -DPMS™ -standard. To save energy, the monitor must be connected to a system compliant with the VESA™ -DPMS™ -standard (refer to your computer and/or video card instructions for proper operation).
- To ensure ease of installation and ongoing use, the monitor features On Screen Display (OSD) of all monitor set-up and adjustment functions.
- For use in a variety of applications, the monitor complies with UL 1950, CSA C22.2 No.950 and EN60950 for safety, FCC Class-B and EN55022 Class-B for EMI, MPR-II, ISO 9241-3, ISO9241-7, and ISO9241-8 for ergonomics. The monitor also complies with TCO'95 guideline for environmental safe use.
- Digital Chassis design for lighter, more compact enclosure and increased screen performance.

- The world's standard DIAMONDTRON tube upgraded with improved focus and convergence for supersharp and pure picture images.
- The monitor complies with Video Electronics Standards Association (VESA TM) DDC TM 1/2B (EDID) specification. If your computer provides DDC TM 1/2B(EDID) function, setup will be done automatically.
- Fine 0.24mm aperture grille pitch/Maximum addressable resolution of 2048 x 1536.
- USB self-powered hub with 2 upstream ports and 3 downstream ports.

Internal Preset Memory Capability

To minimize adjustment needs, the factory has preset popular display standards into the monitor, as shown in Table 1. If any of these display standards are detected, the picture size and position are automatically adjusted.

All of the factory presets may be overwritten by adjusting the user controls. The monitor is capable of automatically storing up to 15 additional display standards. The new display information must differ from any of the existing display standards by at least 1kHz for the horizontal scan frequency or 1Hz for the vertical scan frequency or the sync signal polarities must be different.

Table 1. Memory Buffer Factory Presets

PRESET TIMING	F _h (kHz)	F _v (Hz)	Polarity H	V	PRESET TIMING	F _h (kHz)	F _v (Hz)	Polarity H	V
640 x 480 N.I.	31.5	60.0	–	–	1600 x 1200 N.I.	93.8	75.0	+	+
800 x 600 N.I.	53.7	85.1	+	+	1600 x 1200 N.I.	106.3	85.0	+	+
1024 x 768 N.I.	68.7	85.0	+	+	1920 x 1440 N.I.	112.5	75.0	–	+
1152 x 870 N.I.	68.7	75.1	–	–	1800 x 1350 N.I.	120.4	85.0	–	–
1280 x 1024 N.I.	91.1	85.0	+	+					

Power Management Function

The monitor has the power management function which reduces the power consumption of the monitor when not in use. Power saving mode is invoked by a VESA DPMS-compliant computer. Check your computer's manual for setting this function.

Mode	Power(With no USB operation)	Power-On Indicator
Normal	140 W	Green
Power Saving Mode	≤ 5 W	Amber

DDC

The monitor includes the VESA DDC™1 and DDC™2B feature. DDC (Display Data Channel) is a communication channel over which the monitor automatically informs the computer system about its capabilities (e.g. each supported resolution with its corresponding timing).

DDC is routed through previously unused pins of the 15-pin VGA connector.

The system will perform "Plug and Play" feature if both, monitor and computer, implement the DDC protocol.

Location Considerations

When setting up and using the monitor, keep the following in mind:

- For optimum viewing, avoid placing the monitor against a bright background or where sunlight or other light sources may reflect on the display area of the monitor; place the monitor just below eye level.
- Place the monitor away from strong magnetic or electromagnetic fields, such as high capacity transformers, electric motors, large current power lines, steel pillars... Magnetism can cause distortion in the picture and/or color purity.
- Avoid covering the slots or openings of the monitor. Allow adequate ventilation around the monitor so the heat from the monitor can properly dissipate. Avoid putting the monitor into any enclosure that does not have adequate ventilation.
- Avoid exposing the monitor to rain, excessive moisture, or dust, as this can cause a fire or shock hazard.
- Avoid placing the monitor, or any other heavy object, on the power cord. Damage to the power cord can cause a fire or electrical shock.
- When transporting the monitor, handle it with care.

Cleaning Your Monitor

When clean the monitor, please follow these guidelines:

- Always unplug the monitor before cleaning.
- Wipe the screen and cabinet front and sides with a soft cloth.
- If the screen requires more than dusting, apply a household window cleaner to a soft cloth to clean the monitor screen.

Do not use benzene, thinner or any volatile substances to clean the unit as the finish may be permanently marked. Never leave the monitor in contact with rubber or vinyl for an extended time period. Do not spray directly on the screen as cleaner may drip into the monitor and damage the circuitry. Never use an abrasive cleaner on the screen surface as this will damage the anti-reflection coating.

Unpacking

After you unpack the box you should have all of the items indicated in "Contents of the LaCie electron22blue package" (page3). Save the box and packing materials in case you ship or transport the monitor.

Tilt/Swivel Base

The monitor comes with a tilt/swivel base. This enables you to position the monitor to the best angle and tilt for maximum viewing comfort.

Screen Position Adjustment

Adjust the tilt and rotation of the monitor by placing your hands at opposite sides of the case. You can adjust the monitor 90 degrees right or left, 10 degrees up or 5 degrees down, as shown on Figure 2.

Keep your fingers away from the pivot area of the tilt/swivel base.

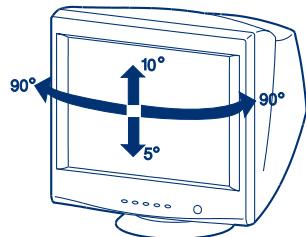
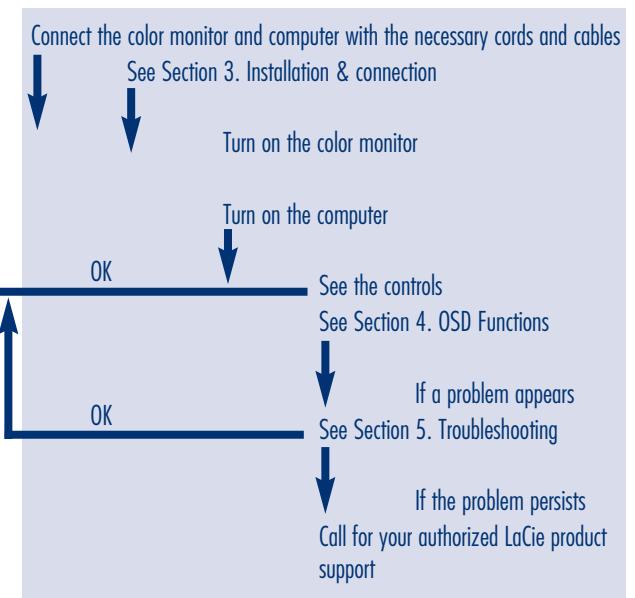
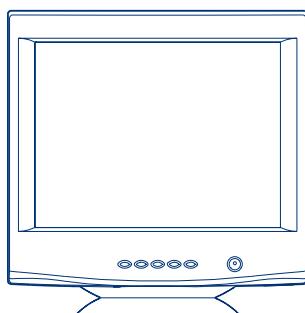


Figure 1

Quick Operation Chart

To summarize the steps in connecting your computer with the color monitor and setting the necessary controls and switches, refer to the chart below.



Part Name

Control Names

See Figures 2 and 3 for the location of the user controls, indicator and connectors.

Each part is identified by number and is described individually.

Functions

1. POWER SWITCH: a push-on / push-off switch for AC power
2. POWER-ON INDICATOR: this indicator illuminates green when AC power is on, and illuminates amber when the monitor is in the power management modes
3. INPUT CONNECTOR SELECT/OSD OFF BUTTON:
 - Without OSD screen, push to select the signal input connector, SIGNAL A or B
 - With OSD screen, push to turn the OSD screen off



If only one input is used, the monitor will select it automatically.

4. DOWN BUTTON: push to select group icon
5. ITEM SELECT BUTTON: push to select the item icon
6. FUNCTION ADJUST BUTTONS: push the adjust buttons to adjust the image on the screen
7. AC POWER CONNECTOR
8. SIGNAL INPUT CONNECTOR (SIGNAL-A): DB9-15P
9. SIGNAL INPUT CONNECTOR (SIGNAL-B): DB9-15P
10. USB UPSTREAM PORTS: to connect to USB equipped computer(s)
11. USB DOWNSTREAM PORTS: to connect to USB equipped peripherals, e.g. USB camera, keyboard, printer, etc.

On the back of the monitor four kinds of plug-in connections are provided: AC power connector for the AC input, DB9-15P connector and BNC connector for video signal input and USB ports for USB communication.

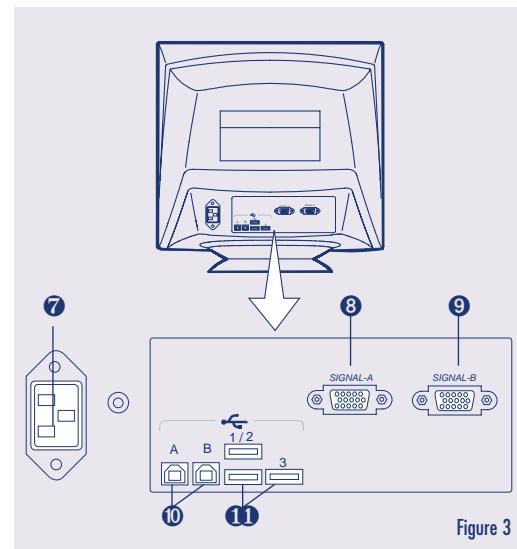
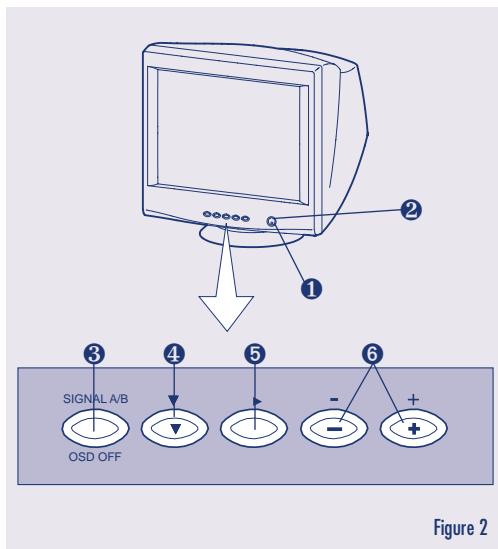


Figure 2

Figure 3

Installation and connection

On the back of the monitor three kinds of plug-in connections are provided: AC power connector for the AC input, and two DB9-15P connectors for video signal input and USB ports for USB communication.

AC Power Connection

One end of the AC power cord is connected into the AC power connector on the back of the monitor. The other end is plugged into a properly grounded three-prong AC outlet. The monitor's auto-sensing power supply can automatically detect 100-120V AC or 220-240V AC and 50 or 60Hz.

Signal Cable Connection

The attached signal cable provides a DB9-15P connector for the VGA compatible analog RGB outputs on your computer. Apple Macintosh computers can also be interfaced with using the optional Macintosh adapter.

Connecting to Any IBM VGA Compatible System

Figure 4 shows the SC-B104 cable connection to the Video Graphics Array (VGA) port in an IBM Personal System/2 ® series, or any VGA compatible system.

1. Power off, both the monitor and the computer.
2. Connect the one end of the SC-B104 cable to the DB9-15P connector on the VGA controller card.
3. Connect the other end of the SC-B104 cable to the DB9-15P receptacle on the back of the monitor.
4. Power on the computer, then the monitor.
5. After using the system, power off the monitor, then off the computer.

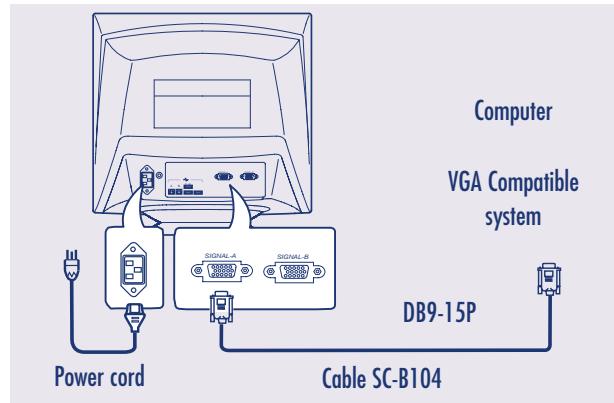


Figure 4

The socket-outlet shall be installed near the equipment and shall be easily accessible. During servicing, disconnect the plug from the socket-outlet.

Connecting to an Apple Macintosh Computer

Figure 6 shows the SC-B104 cable and LaCie blue Macintosh adapter (option) to the video port in an Apple Macintosh. For Macintosh Adapter, contact your dealer.

1. Power off, both the monitor and the computer.
2. Set the DIP switches of Macintosh Adapter according to the setting chart on the adapter.
3. Connect the 15-pin (DB-15P) end of the Adapter to the straight 15-pin connector on the Macintosh video port on the computer or on the video board.
4. Connect the sub-miniature 15-pin (DB9-15P) end of the Adapter to the SC-B104 cable.
5. Connect the other end of the SC-B104 cable to the DB9-15P receptacle on the back of the monitor.
6. Power on the monitor, then the Macintosh.
7. After using the system, power off the monitor, then the Macintosh.

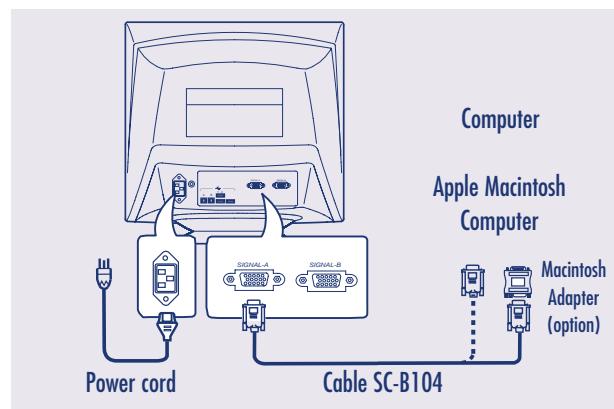


Figure 5

For the Apple Macintosh Computers having a VGA compatible port, steps 2 through 4 are not necessary. Connect the end of the signal cable to the port directly.

In case of Apple Macintosh G3 & G4 series, use "Control Panel" of "Apple Menu" when selecting a resolution. If select the resolution from "Control Bar", no screen may be displayed and the computer may freeze.

Connecting to two computers

Figure 6 shows the connection to two computers. Refer to "Connecting to any IBM VGA compatible system" & "Connecting to an Apple Macintosh Computer" (page 10-11) for the connection procedure.

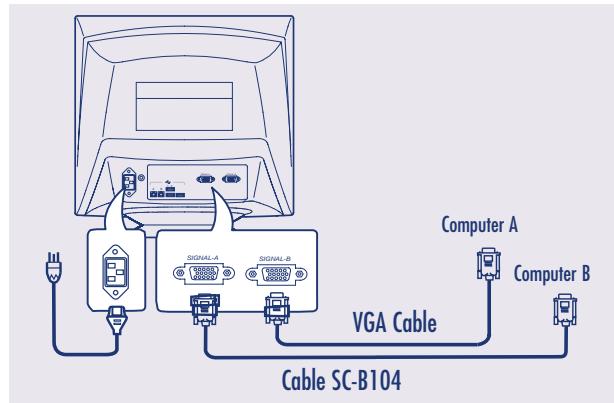
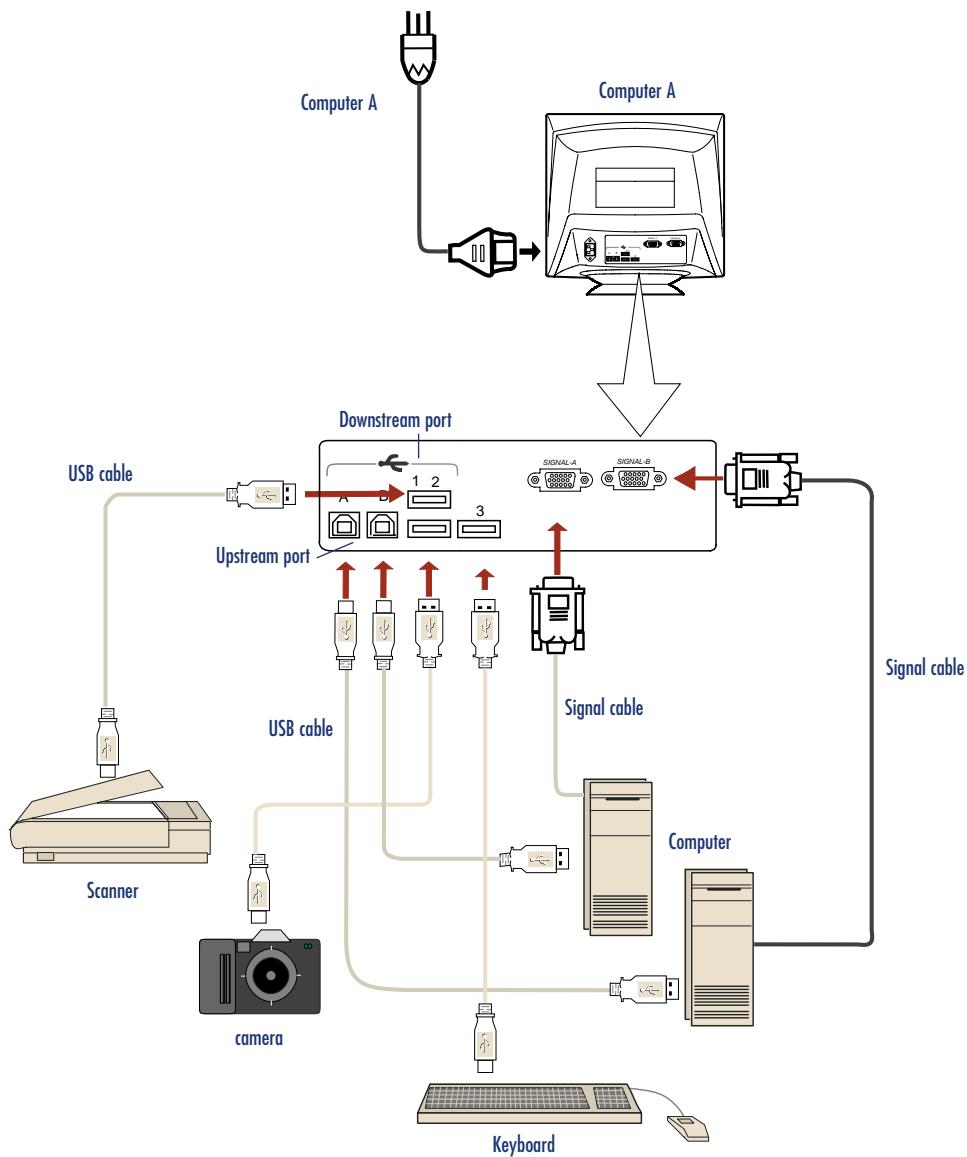


Figure 6

USB System Basic Application



The computer is required to have Windows ® 98 or later installed and USB functions.

When connecting one computer, either Upstream port A or B is available. The Upstream port is automatically matched with the active video input.

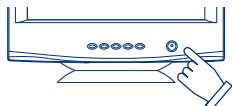
OSD (On Screen Display) Functions

How to adjust the screen

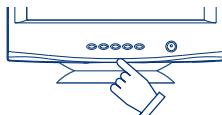
The monitor has an OSD (On Screen Display) function.

The following procedure shows how to adjust the screen with using the OSD function.

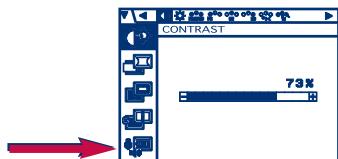
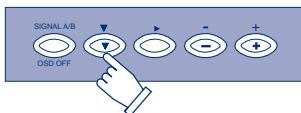
1. Turn on the monitor.



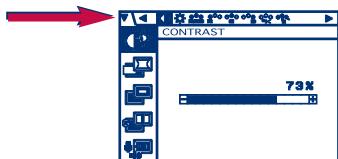
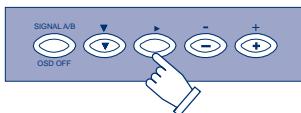
2. Press any button ▼ to display the OSD screen.



3. Select the group icon on Main Menu by pressing ▼ .



4. Select the item icon on Sub Menu by pressing button ▶ .

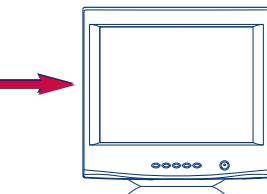
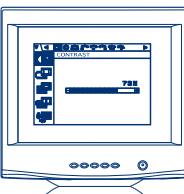
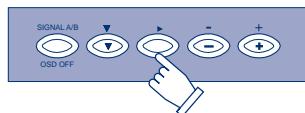


When pressing both ▼ and ▶ buttons simultaneously, moving direction of item selection becomes reverse.

5. Adjust by pressing + or - button.



6. If you don't press any button for about ten seconds, the OSD screen will disappear. The OSD can be turned off quickly by pressing ▶ button.



Adjustment Items

(X = available)

ITEMS	FUNCTIONS	A	B	C	D
CONTRAST	Adjusts the contrast level	X	X	X	
BRIGHT	Adjusts the black level of the screen	X	X	X	
COLOR NO	Select the desired color from Color 1, Color 2, and Color 3 presets		X		
R-GAIN	Adjusts the red-color balances for the selected color	X	X	X	
G-GAIN	Adjusts the green-color balances for the selected color	X	X	X	
B-GAIN	Adjusts the blue-color balances for the selected color	X	X	X	
COLOR TEMPERATURE	Adjusts the color temperature of the image on the screen	X	X	X	
COLOR RESET	Restores each color gain and color temperature to the factory preset	-	-	-	-
HORIZ-SIZE	Adjusts the horizontal size of the image on the screen	X	X	X	
HORIZ-PHASE	Adjusts the horizontal position of the image on the screen	X	X	X	
VERT-SIZE	Adjusts the vertical size of the image on the screen	X	X	X	
VERT-POSITION	Adjusts the vertical position of the image on the screen	X	X	X	
PINCUSHION	Straightens the left and right sides of the image on the screen	X	X	X	
KEYSTONE	Adjusts the parallelism of the left and right sides of the image on the screen	X	X	X	
TOP-PIN	Adjusts the pincushioning at the top corners of the screen	X	X	X	
BOTTOM-PIN	Adjusts the pincushioning at the bottom corners of the screen	X	X	X	
PIN-BALANCE	Adjusts the curvature of the left and right sides of the image on the screen	X	X	X	
KEY-BALANCE	Adjusts the vertical slant or tilt of the screen image	X	X	X	
VERT-LIN-BALANCE	Centers the linearity of the vertical axis of the screen	X	X	X	
VERT-LIN	Adjusts the linearity of the vertical axis of the screen	X	X	X	
ROTATION	Adjusts the rotation of the image on the screen.		X	X	X
ZOOM	Zooms the screen to all sides	X	X	X	
GEOMETRY RESET	Restores to the factory preset level (see "NOTE" below)	-	-	-	-
FINE PICTURE MODE	Selects the status which provides the most pleasing image			X	
HORIZ-CONVERGENCE	Adjusts the horizontal alignment of the red, green and blue beams	X	X	X	
VERT-CONVERGENCE	Adjusts the vertical alignment of the red, green and blue beams	X	X	X	
CORNER PURITY (TL)	Adjusts the purity of the top-left corners of the screen	X	X	X	
CORNER PURITY (TR)	Adjusts the purity of the top-right corners of the screen	X	X	X	
CORNER PURITY (BL)	Adjusts the purity of the bottom-left corners of the screen	X	X	X	
CORNER PURITY (BR)	Adjusts the purity of the bottom-right corners of the screen	X	X	X	

ITEMS	FUNCTIONS	A	B	C	D
MOIRE CANCEL	When setting to ON, the moire level on the screen can decreased by the MOIRE CANCEL LEVEL		X		
MOIRE CANCEL LEVEL	Adjusts the moire level on the screen		X	X	
CLAMP PULSE POSITION	Uses this function to eliminate excessive green or white background that may occur when both Sync-On-Green and external sync signals are applied to the monitor			X	
VIDEO LEVEL	Selects video level 1.0V or 0.7V. (0.7V Standard)		X		
DEGAUSS	Eliminates possible color shading or impurity	-	-	-	-
POWER SAVE	When setting to ON, the power consumption of the monitor will be reduced when not in use if your computer is set for power management			X	X
CONTROL LOCK	Locks the OSD function except for "BRIGHT" and "CONTRAST"				X
OSD POSITION	Moves the OSD screen position			X	X
ALL RESET	Restores all items to the factory preset level (see "NOTE" below)	-	-	-	-
GTF AUTO ADJUST	Adjusts the screen size and distortion automatically	-	-	-	-
DIAGNOSIS	Indicates the current scanning frequency, factory or user preset timing number, and signal input connector	-	-	-	-
LANGUAGE	Selects the language used on OSD screen				X
USB UP-STREAM	Selects the Upstream port which you want to use			X	X
USB PORT COMBINATION	Selects the combination of the Upstream port and signal input connector			X	X

A: press "GEOMETRY RESET" to restore to the factory preset level.

B: press  and  buttons together, to restore to the factory preset level.

C: press "ALL RESET" to restore to the factory preset level.

D: set data does not change by the change of the signal timing.



If a non-Factory Preset timing is used, "GEOMETRY RESET" and "ALL RESET" do not work.

GROUP ICON	ITEM ICON	ITEM	PRESS THE MINUS BUTTON   	PRESS THE PLUS BUTTON   
		CONTRAST	To decrease the contrast	To increase the contrast
		BRIGHT	To decrease the brightness	To increase the brightness
		COLOR NO	To select color 1, color 2, color 3	
		R-GAIN	To decrease red color level of the color mode selected by "COLOR NO"	To increase red color level of the color mode selected by "COLOR NO"
		G-GAIN	To decrease green color level of the color mode selected by "COLOR NO"	To increase green color level of the color mode selected by "COLOR NO"
		B-GAIN	To decrease blue color level of the color mode selected by "COLOR NO"	To increase blue color level of the color mode selected by "COLOR NO"
		COLOR TEMPERATURE	To decrease the color temperature of the color mode selected by "COLOR NO"	To increase the color temperature of the color mode selected by "COLOR NO"
		HORIZ-SIZE	To narrow the width of the image on the screen	To expand the width of the image on the screen
		HORIZ-PHASE	To move the image on the screen to the left	To move the image on the screen to the right
		VERT-SIZE	To narrow the height of the image on the screen	To expand the height of the image on the screen
		VERT-POSITION	To move the image down	To move the image up
		PINCUSHION	To collapse the center of the image	To expand the center of the image
		KEYSTONE	To decrease the width at the top of the screen image and to increase the width at the bottom	To increase the width at the top of the screen image and to decrease the width at the bottom
		TOP-PIN	To expand the width of the screen image near the corners of top	To narrow the width of the screen image near the corners of top
		BOTTOM-PIN	To expand the width of the screen image near the corners of bottom	To narrow the width of the screen image near the corners of bottom
		PIN-BALANCE	To move the top and bottom of the screen image to the right	To move the top and bottom of the screen image to the left
		KEY-BALANCE	To make the screen slant to the left	To make the screen slant to the right
		VERT-LIN-BALANCE	To vertically expand the bottom of the screen and compress the top	To vertically compress the bottom of the screen and expand the top
		VERT-LIN	To vertically compress the center of the screen and expand the top and bottom	To vertically expand the center of the screen and compress the top and bottom
		ROTATION	To rotate the image counterclock-wise	To rotate the image clockwise
		ZOOM	To narrow the screen to all sides	To expand the screen to all sides
		GEOMETRY RESET		To restore to factory preset level

GROUP ICON	ITEM ICON	ITEM	PRESS THE MINUS BUTTON	PRESS THE PLUS BUTTON
		FINE PICTURE MODE	To select the status which provides the most pleasing image	
		HORIZ-CONVERGENCE	To adjust the horizontal beam alignment on the full screen area	
		VERT-CONVERGENCE	To adjust the vertical beam alignment on the full screen area	
		CORNER PURITY(TL)	To adjust the purity condition on the top-left corner	
		CORNER PURITY(TR)	To adjust the purity condition on the top-right corner	
		CORNER PURITY(BL)	To adjust the purity condition on the bottom-left corner	
		CORNER PURITY(BR)	To adjust the purity condition on the bottom-right corner.	
		MOIRE CANCEL	To select the Moire Cancel mode off	To select the Moire Cancel mode on
		MOIRE CANCEL LEVEL	To decrease the level of the moire-clear wave	
		CLAMP PULSE POSITION	To eliminate an excessive green or white-back ground that may occur when both Sync-On-Green and external sync signals are applied to the monitor To clamp the video signal at the front of the H-Sync pulse	To clamp the video signal at the back of the H-Sync pulse. If you connect to an older Macintosh, you may need to press plus button
		VIDEO LEVEL	To select 1.0V of video input. To select 0.7V of video input	
		DEGAUSS		To eliminate possible color shading or impurity due to magnetic effects.
		POWER-SAVE	To select the constant power consumption mode	To select the power-save mode (your computer must be set for power management)
		CONTROL LOCK	To unlock the OSD function	To lock the OSD function except for "BRIGHT" and "CONTRAST"
		OSD POSITION	To move the OSD screen position in a counter clockwise direction	To move the OSD screen position in a clockwise direction
		ALL RESET		To restore all items to the factory preset
		GTF AUTO ADJUST		To adjust screen size, position and distortions automatically
		DIAGNOSIS	To show the current scanning frequency, Preset No., and signal input connection	
		LANGUAGE	To choose the language used on OSD > ENG.....English, FRA.....French, ESP.....Spanish, ITA.....Italian, GER.....German, JPN.....Japanese	



CONTROL LOCK: this is to lock the OSD function to keep the OSD screen image you set. Press plus button to lock the OSD function. You can adjust only "BRIGHT" and "CONTRAST" at the condition. Press minus button to unlock the locked condition.



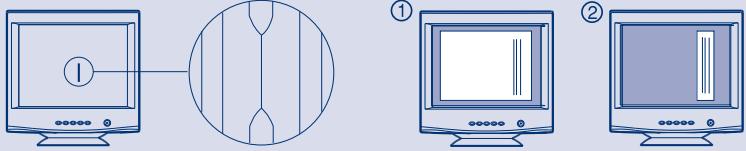
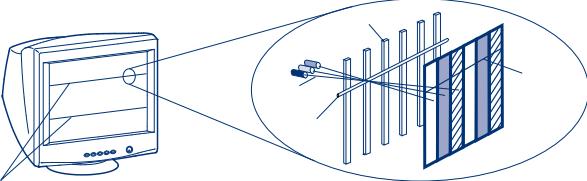
GTF: this function is available when the computer has the GTF™ function according to the VESA® GTF™ standard.

GROUP ICON	ITEM ICON	ITEM	PRESS THE MINUS BUTTON   	PRESS THE PLUS BUTTON   
		USB UP-STREAM	The USB functions of the computer connected to Upstream port ROOT-A become active.	The USB functions of the computer connected to Upstream port ROOT-B become active.
			<ul style="list-style-type: none"> The active Upstream port in active is colored blue on the OSD screen In case that either the Upstream port ROOT-A or ROOT-B is chosen by this function, the auto-change of the Upstream port is not available. It may take about 15 seconds until the USB devices have been recognized by the computer after the Upstream port is changed. Make sure the operation of the devices connected to the down-stream ports before changing USB Upstream ports. It may take approximately 15 seconds max. until the devices have been recognized by the computer and start to operate after the Up-stream ports are changed. Do not change the Upstream ports during recognition to prevent errors of the operation of devices or application software. Close all Windows programs before changing Upstream ports. 	
		USB PORT COMBINATION	The Upstream port ROOT-A is assigned for signal input connector "SIGNAL-A" and ROOT-B is assigned for "SIGNAL-B"	The Upstream port ROOT-A is assigned for signal input connector "SIGNAL-B" and ROOT-B is assigned for "SIGNAL-A"
			<ul style="list-style-type: none"> This function is to change the Upstream port automatically in corresponding to the change of signal input connector. This function is only available in case that both the Upstream ports are connected to the computers. It may takes 15 seconds until the USB devices have been recognized by the computer after the Upstream port is changed. In case that the computer chosen enters into a power management mode, the signal input connector and Upstream port are changed to others automatically. When the Upstream port which is connected to the computer not displays on the screen is selected, the operation of the USB devices connected to the Downstream ports is not shown on the screen of the display monitor. 	

Troubleshooting

Before calling your Authorized Product Support, please check that the items below are properly connected or set. In case of using a non-standard signal, please check the pin assignments and the signal timing of your computer with the specification outlined in Section "Specifications" and Section "Appendix".

PROBLEM	ITEMS TO CHECK	LOCATION
No Picture	LED On (Green)	<ul style="list-style-type: none"> Contrast and brightness controls
	LED Off	<ul style="list-style-type: none"> Power switch AC power cord disconnected
	LED On (Amber)	<ul style="list-style-type: none"> Signal cable disconnected Computer power switch Power management function is active
The following message appeared	 <ul style="list-style-type: none"> Signal cable disconnected Computer power switch Power management function is active 	<ul style="list-style-type: none"> Rear Computer Press any key on the keyboard or move the mouse
The following message appeared	 <ul style="list-style-type: none"> Input signal frequency range is too high or too low for the monitor to synchronize with adapter 	<ul style="list-style-type: none"> Check the specification of graphics
Abnormal Picture	Display is missing, center shifts, or too small or too large of a display size	<ul style="list-style-type: none"> Do "GEOMETRY-RESET" or "ALL RESET" for a standard signal Adjust HORIZ-SIZE, VERT-SIZE, HORIZ-PHASE, and VERT-POSITION with non-standard signals Monitor may not be able to get full-screen image depend on signal. In this case, please select other resolution, or other vertical refresh timing Make sure you wait a few seconds after adjusting the size of the image before changing or disconnecting the signal
	No operation of the USB devices	<ul style="list-style-type: none"> [Universal serial bus controller] is not listed in [Device Manager] [Generic USB HUB] is not listed in [Device Manager] On the OSD screen, the Upstream port to which the USB device you want to use is connected is not colored by blue.

PROBLEM	ITEMS TO CHECK
Abnormal Picture Black vertical lines are visible on the screen.	<p>Thin vertical black lines on one or both sides of the screen. This minor condition is caused by grille element overlap which can occur during shipping. Position an open white window over the affected area of the screen and maximize the brightness and contrast controls. This will cause localized heating of the overlap which will clear in a few minutes. Be sure to readjust the brightness and contrast controls back to the normal viewing levels after this procedure.</p> 
Two fine horizontal lines are visible on the screen.	<p>The 2 very faint thin lines across the screen are normal. They are caused by the aperture grille stabilization filaments (Damper Wires) which are required for all aperture grille CRTs'.</p> 
A buzzing sound when power on.	<p>A brief vibration or hum sound that is heard just after power up is normal. This is caused by the automatic degaussing function. This sound will be heard each time the monitor is powered up from a cold start and each time the manual degauss button is used.</p>

Specifications

CRT	Size Mask type Gun Deflection angle Phosphors Aperture grille pitch Phosphor pitch	55cm/22"(51cm/20" Diagonal Viewable Image) Aperture grille In-line 90° Red, Green, Blue EBU (medium short persistence) 0.24mm 0.25mm
INPUT SIGNAL	Video Sync	0.7Vp-p analog RGB Sync. on Green or separate H, V sync., or Composite sync
SIGNAL INTERFACE	Input Connectors Input Impedance	DB9-15P x 2 75Ω (video), 2.2kΩ (sync.)
USB	Function Interface	Self-powered HUB complying with Universal Serial Bus Specification Rev.1.0 2 Upstream ports/12Mbps 3 Downstream ports/12Mbps, 1.5Mbps (500mA max. per each Downstream port)
SCANNING	Horizontal	30 - 121kHz
FREQUENCY	Vertical	50 - 160Hz
RESOLUTION	(HxV) 2048 dots x 1536 lines Non-Interlaced maximum addressable resolution format at 75Hz	
WARM-UP TIME	30 minutes to reach optimum performance level	
BRIGHTNESS	100cd/m ² , standard full white video signal at 9300K (+ 8MPCD)	
BLANKING TIME	Horizontal Vertical	≥ 2.3 μsec (typ.) ≥ 450 μsec (typ.)
DISPLAY SIZE	393mm x 295mm(typ.)	ratio 4:3
COLOR	5000K~9300K	
POWER SOURCE	AC100-120/220-240V±10% 50/60Hz 140W (typ.) <155W(typ.): with USB operation>	
OPERATING	Temperature	5 - 35°C
ENVIRONMENT	Humidity	10 - 90% RH (without condensation)
DIMENSIONS	(W)19.7inch x (H)19.7inch x (D)19.0inch / (W) 500mm x (H) 500mm x (D) 482mm	
WEIGHT	Approx. 29.5kg (65lbs.)	
TIKT/SWIVEL	Tilt Angle	-5° +10°
BASE	Swivel Angle	±90°
REGULATIONS	Safety EMC X-Ray Other	UL1950 (UL), CSA C22.2 No.950 (C-UL) • EN60950 (TÜV-GS) FCC Class-B, DOC Class-B • EN55022 Class-B • EN50082-1, EN61000-3-2, EN61000-3-3 DHHS, HWC, Röv vom 8.1, 1987 CE-Marking, MPR-II/TCO'91 • ISO9241-3, ISO9241-7, ISO9241-8 (TÜV-GS) • TCO'95 • International ENERGY STAR Program

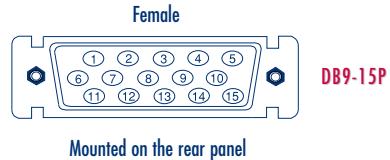
Appendix

Monitor Signal Input Connector (DB9-15P)

Pin Assignments

Pin No.	Signal
1	RED VIDEO
2	GREEN VIDEO or COMPOSITE SYNC with GREEN VIDEO
3	BLUE VIDEO
4	GROUND
5	DDC GROUND
6	RED GROUND
7	GREEN GROUND
8	BLUE GROUND
9	NC
10	SYNC GROUND
11	GROUND
12	SDA
13	HORIZONTAL SYNC or COMPOSITE SYNC
14	VERTICAL SYNC(VCLK)
15	SCL

DDC DISPLAY DATA CHANNEL
SDA SERIAL DATA
SCL SERIAL CLOCK
NC NO-CONNECTION

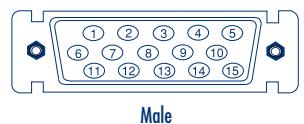
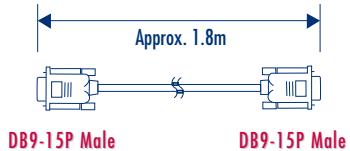


SC-B104 Signal Cable

Pin Assignments

Pin No.	Signal
1	RED
2	GREEN
3	BLUE
4	GROUND
5	DDC GROUND
6	RED GROUND
7	GREEN GROUND
8	BLUE GROUND
9	NC
10	SYNC GROUND
11	GROUND
12	SDA
13	HORIZONTAL SYNC
14	VERTICAL SYNC(VCLK)
15	SCL

DDC DISPLAY DATA CHANNEL
SDA SERIAL DATA
SCL SERIAL CLOCK
NC NO-CONNECTION



Optional LaCie blue Macintosh adapter settings

The LaCie blue Macintosh Adapter (option) allows you to take an advantage of the built in video capabilities of your Macintosh computer with the monitor.

1. Set the dip switches of the adapter, before connecting it to the computer.
2. Set the dip switches according to the chart on the adapter. By using this chart, you can choose a main resolution, quickly.

Installing the LaCie blue hood

The LaCie color enhancing hood guarantees the most accurate and consistant colors on the electron22blue by reducing the interference of surrounding light and by eliminating light reflection and shadows. The inside of the hood is made of a light absorbing plastic for the best result possible.

- Step 1

Remove the white covers on the two Velcro tabs from the center panel of the hood. Do not remove the tape covers from the Velcro on the side panels. Do not separate the Velcro tabs as it will make final installation more difficult.

- Step 2

Adhere the center panel of the hood to the top of the monitor. The rear of the hood should be placed approximately 4 cm (1.5") from the front edge of the monitor, aligned with the junction between the two parts of the monitor casing, creating an overhang of about 15 cm (6").

- Step 3

Repeat the process in step 1 for the side panels. Remove the white tape covers on the Velcro tabs from the side panels. Align the backedge of the monitor to follow the curve on the side of the monitor.

- Step 4

Once all the Velcro tabs are adhered to the monitor, gently remove the hood by lifting one side then the other and then the top panel. Press firmly on the Velcro tabs on the monitor for a better bond and reattach the hood. You should always keep the hood on for the best colors and eye comfort possible. However you can easily remove the hood if you need to enlarge the viewing angle.

